domain accelerator is mutually signed.

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Title: TECHNIQUES FOR SECURELY ACCELERATING EXTERNAL DOMAINS LOCALLY

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A computer-implemented method residing in a computer-readable medium and processed by a forward proxy for securely accelerating an external domain locally to a client, comprising:

receiving, at the forward proxy, a secure communications request for an external domain from a client;

establishing, at the forward proxy, a secure channel with the client using an anonymous secure socket layer (SSL) handshake, the secure channel is a temporary secure channel;

identifying, at the forward proxy, a domain identification associated with the request <u>by</u> inspecting a host header for the request;

discontinuing, by the forward proxy, the temporary secure channel; and

routing, by the forward proxy, the request to a local domain accelerator based on the domain identification, the local domain accelerator communicates securely with the external domain via a first set of unique session keys used for the local domain accelerator and the external domain to communicate via encrypted communications with one another and separately the local domain accelerator communicates securely with the client via a second set of unique session keys used for the local domain accelerator and the client to communicate and the first set of session keys and the second set of session keys are different from one another and the client believes communication that the client has with the local domain accelerator is occurring with the external domain because the local domain accelerator vends an external domain certificate to the client during the communication to present itself as the external domain but in fact it occurs with the local domain accelerator via the second set of session keys, and the local domain accelerator caches data from the external domain for servicing the request of the client, and wherein the data is cached and managed via the forward proxy and maintained in encrypted format within cache and then decrypted and re-encrypted using the second set of unique session keys when data from the cache is delivered from the local domain accelerator to the client from the cache to satisfy the request and all communication between the external domain and the local

Page 3

AMENDMENT AND RESPONSE UNDER 37 C.F.R § 1.111

Serial Number: 10/814,983 Dkt: 1565.069US1

Filing Date: March 31, 2004

Title: TECHNIQUES FOR SECURELY ACCELERATING EXTERNAL DOMAINS LOCALLY

- 2. (Cancelled).
- 3. (Cancelled).
- 4. (Original) The method of claim 1 further comprising, establishing a Secure Sockets Layer (SSL) handshake between the client and the local domain accelerator to service the request, wherein the client believes that the handshake is with the external domain.
- 5. (Original) The method of claim 1 wherein receiving further includes intercepting the request that originates from the client for the external domain.
- 6. (Original) The method of claim 1 further comprising, accessing, by the local domain accelerator, caching services for caching and managing the data.
- 7. (Original) The method of claim 1 wherein identifying further includes stripping a host header from the request, wherein the host header is the domain identifier which identifies the external domain.
- 8. (Currently Amended) A computer-implemented method residing in a computer-readable medium and processed by a proxy for securely accelerating an external domain locally, comprising:

receiving a secure request forwarded from a proxy, the secure request originating from a client and destined for an external domain, the proxy acting as both a transparent and forward proxy within a local environment of the client;

establishing a temporary secure channel between the client and the proxy via an anonymous secure socket layer (SSL) handshake to acquire from a header of the secure request an identity for the external domain and then discontinuing the temporary secure channel;

establishing a secure communication with the client by providing the client a certificate associated with the external domain, the certificate is for the external domain and is vended to

Page 4

the client to make the client believe the secure interaction is occurring with the external domain,

and the secure communication entails using a first set of session keys to communicate securely

with the client and the client believes after receiving the certificate that communication is

occurring with the external domain; and

servicing the client with data from local cache that is acquired from the external domain

via encrypted communications, and a portion of that data is used to service the secure request,

and separate communication is securely established with the external domain using a second set

of session keys via the encrypted communications, the first set of session keys different from the

second set of session keys, and the data is encrypted within the local cache of the proxy and

subsequently decrypted and then re-encrypted and delivered to the client using the first set of

session keys via the secure communication with the client and all communication with the

external domain to and from the method is mutually signed.

9. (Original) The method of claim 8 wherein servicing further includes acting as the

external domain when interacting with the client.

10. (Original) The method of claim 8 further comprising accessing caching services from the

proxy to manage the data in the local cache.

11. (Original) The method of claim 8 wherein servicing further includes acquiring at least a

portion of the data from the external domain in advance of a subsequent request for that portion

of the data, wherein the subsequent request is issued from the client.

12. (Original) The method of claim 8 wherein servicing further includes interacting securely

with the external domain to acquire the data housed in the local cache.

13. (Cancelled).

14. (Cancelled). Serial Number: 10/814,983 Dkt: 1565.069US1

Filing Date: March 31, 2004

Title: TECHNIQUES FOR SECURELY ACCELERATING EXTERNAL DOMAINS LOCALLY

15. (Currently Amended) An external domain acceleration system, comprising: a proxy configured as both a transparent and forward proxy; and

a local domain accelerator implemented in a computer-readable medium and to process on the proxy, a client securely requests an external domain and the proxy routes the request to the local domain accelerator, a secure request between the client and the proxy occurs via an anonymous secure socket layer (SSL) handshake via a temporary secure channel that is discontinued by the proxy once the proxy acquires an identity for the external domain from a header of the secure request; the local domain accelerator securely communicates with the external domain via encrypted communications and caches data in a local cache of the proxy in an encrypted format which is used to service the client via secure communications between the local domain accelerator and the client by decrypting and then re-encrypting the data from the local cache using a first set of session keys, and the local domain accelerator securely communicates with the client using the first set of session keys and securely communicates with the external domain using a second set of session keys via the encrypted communications, the first set of session keys are different from the second set of session keys, and wherein the client believes communication is occurring between the client and the external domain because the local domain accelerator vends an external domain certificate to the client during the communication to present itself as the external domain, but in fact communication is occurring between the client and the local domain accelerator via the first set of session keys and all communication between the external domain and the local domain accelerator is mutually signed.

- 16. (Cancelled).
- 17. (Cancelled).
- 18. (Original) The external domain acceleration system of claim 15 wherein the client is a browser application that interacts with the local domain accelerator via Secure Sockets Layer (SSL) communications.

Serial Number: 10/814,983 Dkt: 1565.069US1

Filing Date: March 31, 2004

Title: TECHNIQUES FOR SECURELY ACCELERATING EXTERNAL DOMAINS LOCALLY

- 19. (Cancelled).
- 20. (Original) The external domain acceleration system of claim 15 wherein the proxy creates a secure communications tunnel between the client and the local domain accelerator and the proxy creates a secure communications channel between the local domain accelerator and the external domain.
- 21. (Currently Amended) An external domain acceleration system, comprising: a local domain accelerator implemented in a computer-readable medium and to process on a forward proxy for a client; and

cache of the proxy, , the proxy configured to establish an initial temporary secure channel with the client via an anonymous secure socket layer (SSL) handshake to parse from a header of a secure request an identity for an external domain and then the proxy discontinues the temporary secure channel, the local domain accelerator securely communicates with the client as if the local domain accelerator was the [[an]] external domain and securely communicates with the external domain via encrypted communications for purposes of acquiring data from the external domain, and wherein the local domain accelerator houses the data in and vends the data from the cache to the client, the data housed in the cache in an encrypted format, and wherein the local domain accelerator securely communicates with the client via a first set of session keys and separately securely communicates with the external domain using a second set of session keys via the encrypted communications and the first set of session keys is different from the second set of session keys and the client believes that the client is communicating with the external domain because the local domain accelerator vends an external domain certificate to the client during the communication to present itself as the external domain, but in fact the client is communicating with the local domain accelerator using the first set of session keys and all communication between the external domain and the local domain accelerator is mutually signed.

22. (Original) The external domain acceleration system of claim 21 further comprising a proxy that acts as a secure conduit between the client and the local domain accelerator and a

AMENDMENT AND RESPONSE UNDER 37 C.F.R § 1.111

Page 7

Serial Number: 10/814,983 Dkt: 1565.069US1

Filing Date: March 31, 2004

Title: TECHNIQUES FOR SECURELY ACCELERATING EXTERNAL DOMAINS LOCALLY

secure conduit between the local domain accelerator and the external domain.

23. (Cancelled).

24. (Previously Presented) The external domain acceleration system of claim 21 wherein the

local domain accelerator and the external domain exchange certificates with one another during

communications with one another.

25. (Previously Presented) The external domain acceleration system of claim 21 wherein the

client is a browser and uses Secure Sockets Layer (SSL) communications to attempt to directly

communicate with the external domain, the communications are intercepted and forwarded to the

proxy and the proxy forwards the communications to the local domain accelerator where the

local domain accelerator presents itself securely to the client as if it were the external domain.

26. (Original) The external domain acceleration system of claim 21 wherein the external

domain includes a plurality of external sites having a plurality of services